



The 2004 FHWA National Hydraulic Engineering Conference:
Transforming Technology and Research into Practice



CONFERENCE AGENDA

Monday, August 30, 2004

- 5:00 - 7:00 Conference Sign-In**
- 6:00 - 10:00 Welcome Party**
 - *Upper Pool*

Tuesday, August 31, 2004

Morning Session – Update of Nation and States

- 8:00 - 8:30 Opening Remarks**
- 8:30 - 9:00 Key Note Address**
 - *Len Sanderson, Administrator, NCDOT*
- 9:00 - 10:00 Status of National Research and Activities**
 - *Representatives from NHT, NHI, NCHRP*
- 10:00 - 10:30 Break**
- 10:30 - 11:30 Roundtable Discussions of States' Challenges and Solutions**
- 11:30 - 12:00 Summarization of Discussions**

12:00 - 1:00 Lunch On Your Own

Afternoon Session — Modeling with WMS and SMS:

- 1:00 - 2:00 Overview of WMS Software and Applications in Hydrologic and Hydraulic Design**
 - *Jim Nelson, Brigham-Young University*
- 2:00 - 2:30 New Mexico DOT's Experiences with WMS**
 - *Parviz Eftekhari, New Mexico Department of Transportation*
- 2:30 - 3:00 Pennsylvania DOT's Experiences with WMS**
 - *Barry Newman, Pennsylvania DOT*
- 3:00 - 3:30 Break**
- 3:30 - 4:30 Overview of SMS Software and Application in Hydraulic Design**
 - *Alan Zundel, Brigham-Young University*
- 4:30 - 5:00 Utah DOT's Experiences with SMS**
 - *???, Utah DOT*



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Wednesday, September 1, 2004

Morning Session A - Hydrology

8:00 - 9:00 Regional Characteristics of Unit Hydrographs and Hyetographs

- George Hermann, Texas DOT, and David Thompson, Texas Tech University

9:00 - 9:30 Recent Updates To NOAA/NWS Precipitation Frequency Estimates

- Geoffrey Bonnin, National Weather Service

9:30 - 10:00 An Evaluation of Hydrologic Procedures in Maryland

- Will Thomas, Michael Baker Jr

10:00 - 10:30 Break

10:30 - 11:30 National Flood Frequency and StreamStats Programs

- Kernell Ries, USGS

11:30 - 12:00 Region of Influence Regression Equations

- Ali Hangul, Tennessee DOT

Morning Session B1 - Plans of Action

8:00 - 8:30 Plans of Action

- Jorge Pagan, FHWA Headquarters

8:30 - 9:00 Minnesota DOT's Plans of Action

- Andrea Hendrickson, Minnesota DOT

9:00 - 9:30 Oklahoma DOT's Plans of Action

- Leslie Lewis, Oklahoma DOT

9:30 - 10:00 Idaho DOT's Plans of Action

- Lotwick Reese, Idaho DOT

10:00 - 10:30 Break

Morning Session B2 - Culverts/Pipes

10:30 - 11:00 Florida DOT HDPE Pipe Research

- Rick Renna, Florida DOT

11:00 - 11:30 Bottomless Culvert Research

- Sterling Jones, FHWA

11:30 - 12:00 South Dakota Multi-Barrel Box Culvert Research

- Rich Phillips, South Dakota DOT, and Sterling Jones, FHWA

12:00 - 1:00 Lunch On Your Own

Afternoon Sessions A and B

1:00 - 5:00 Field Trip to I-26 Extension Project



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Thursday, September 2, 2004

Morning Session A - Coastal Engineering

8:00 - 10:00 Coastal Engineering Overview I

- Scott Douglass, University of South Alabama

10:00 - 10:30 Break

10:30 - 12:00 Coastal Engineering Overview II

- Scott Douglass, University of South Alabama

Morning Session B – Environmental Issues

8:00 - 9:00 Efficiency of Water Quality Inlets

- Brant Keller, City of Griffin

9:00 - 9:30 Recent Guidance on the Integrated Unit Process Design Approach and Low Impact Design for Highway Runoff Controls

- Marcus Quigley, GeoSyntec

9:30 - 10:00 Asset Management of Stormwater Facilities

- Sonal Sanghavi, Maryland SHA

10:00 - 10:30 Break

10:30 - 11:00 The Use of Stormwater: Case Histories

- Marty Wanielista, StormWater Academy, CFU

11:00 - 11:30 Springshed Water Budgets and Transportation Planning

- Marty Wanielista, StormWater Academy, CFU

11:30 - 12:00 Stormwater Treatment of Wetlands

- Kevin White, USA

12:00 - 1:00 Lunch On Your Own

Afternoon Session A – Coastal Engineering

1:00 - 1:30 Storm Tide Hindcasts for Hurricane Hugo: Into an Estuarine and Riverine Environment

- Scott Hagen, University of Central Florida

1:30 - 2:00 Application of 2-D Numerical Model to Investigate Tidal Bridges

- Serkan Mahmutoglu, EarthTech, Inc.

2:00 - 3:00 Comparison of ADCIRC, RMA2, and FESWMS for Tidal Modeling

- Max Sheppard, University of Florida

3:00 - 3:30 Break

3:30 - 4:00 Alaska DOT's Experiences

- Mark Miles, Alaska DOT

4:00 - 4:30 Indian River Bridge

- Dennis O'Shea, Delaware DOT

4:30 - 5:00 Technical to Practical - Tacoma Narrows Bridge Hydraulic Analysis

- Stanley Polasik, Parsons



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Thursday, September 2, 2004, cont.

Afternoon Session B – Stream Stability

1:00 - 1:30 NCHRP 20-07 Task 178 – Evaluation and Update of NCHRP Project 24-08

"Scour at Bridge Foundations Research Needs"

- *Pete Lagasse, Ayres and Associates*

1:30 - 2:00 Evaluation of Natural Channel Bridge Scour Countermeasures

- *Alan Zundel, BYU*

2:00 - 2:30 NCHRP 24-19 – Environmentally Sensitive Bank Protection

- *John McCullah, Salix Applied Earthcare*

2:30 - 3:00 Simplified Stream Reconnaissance

- *Peggy Johnson, State College*

3:00 - 3:30 Break

3:30 - 4:00 Maury River Restoration

- *Guy Tudor, Virginia DOT*

4:00 - 4:30 Spanning the Ganges at Paksey – Hydraulic and Geomorphic Aspects

- *David Froehlich*

4:30 - 5:00 Hatachie River Revisited

- *Wesley Peck, Tennessee DOT*

Friday, September 3, 2004

Morning Session – Scour

8:00 - 8:30 Regional Scour Characteristics for SCDOT

- *Steve Benedict, USGS*

8:30 - 9:00 NCHRP 24-14 – Scour at Contracted Openings

- *Steve Benedict, USGS*

9:00 - 9:30 Laboratory and 3D Numerical Modeling with Field Monitoring of Regional Bridge Scour in Georgia

- *Terry Sturm, Georgia Tech*

9:30 - 10:00 Scour at the Bonner Bridge on North Carolina's Barrier Island

- *Jerry Beard, North Carolina DOT*

10:00 - 10:30 Break

10:30 - 11:00 Florida DOT I-10 Chipola River Rock Scour Project

- *Max Sheppard, University of Florida*

11:00 - 11:30 Scour Prediction Using the EFA Machine

- *Veronica Ghelardi, FHWA*

11:30 - 12:00 Conference Wrap Up